

### **REMARKS**

Independent claims 144 and 145 have been amended. Dependent claims 2-4, 6-41, 141 and 143 remain unchanged, though affected by the revisions to the independent claims. Claims 5 and 142 were previously canceled, and claims 42-139 were previously withdrawn. No new matter has been added to the application by virtue of this *Amendment And Response*.

Applicants believe that all pending claims are patentable over the prior art of record. Neither alone nor in combination do the *Rossling et al.* and *Uber, III et al.* patents render obvious the subject matter of claims 144 and 145. The *Quay et al.*, *Daum et al.* and *Engel* references also do not render obvious any of the pending claims. In fact, Applicants submit that even previous versions of the claims recited patentable subject matter. Nevertheless, with the amendments offered herein, various limitations have herein been added to the claims to augment their novelty over the prior art, yet still enable the invention to be protected in the appropriate breadth.

Significant here is that, neither alone nor in combination do the prior art references teach “*a system for preparing a medium with bubbles formed therein for immediate injection into a patient....*” of the type claimed in the independent claims. In particular, individually or collectively, the prior art fails to disclose such a system having a “*controller [that] enables an operator of said system to adjust at least one operating parameter thereof through which to control simultaneously (I) the pressurizing device and flow of the liquid therefrom into the bubble generator, (II) the bubble generator and creation of the bubbles in the liquid to form the medium therein and (III) flow of the medium from the bubble generator via the outlet thereof thus allowing the immediate injection of the medium into the patient in connection with the medical procedure.*”.

As explained in earlier arguments,<sup>1</sup> incorporated herein by reference, the *Rössling et al.* patent teaches only a process of producing pre-packaged (dried, spherically-shaped, gas-containing) microparticles to which water can be added later to form a bubble contrast medium. The *Uber, III et al.* patent teaches the filing of a syringe with such a pre-made medium and then placing it into their injector system. After the syringe containing the rehydrated bubble medium is loaded into the system of *Uber et al.*, its combination with the teachings of *Rössling et al.* yield the same system as that taught in the *Uber, III et al.* patent itself, specifically, a system that is only capable of reducing the concentration of bubbles in the medium to a desired level. *Quay et al.* pertains only to bulk formation of a bubble contrast medium, which is then injected into the blood stream. *Daum et al.* pertains only to creation of bubbles directly within a blood vessel by means of gas injected via a needle. Neither reference discloses a controller that permits an operator to adjust the operating parameters of the system through which to control, for example, not only the bubble generator but also the creation of the bubble medium therein and the flow of the medium therefrom immediately into the patient. This is something that the prior art simply does not do.

Although various claims have been amended or canceled during prosecution, Applicants wish to point out that such revisions are not meant to be construed as an admission of unpatentability of the subject matter recited in earlier versions of the claims. Instead, such revisions should be considered as having been made only to expedite prosecution of the application. They should not be considered as a surrender of the right to pursue any subject matter disclosed in the present application or in any continuation or divisional application based thereon that may be filed in the future.

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<sup>1</sup> See e.g., *Amendment And Response To Final Office Action Dated 9 December 2010*, submitted on 10 May 2010; and *Amendment And Response To Office Action Dated 30 April 2009*, submitted on 31 August 2009.


### CONCLUSION

Before entry of this *Amendment And Response*, the present application had forty-three (43) claims pending, two (2) of which independent. Upon entry of this *Amendment And Response*, the number of claims remains unchanged though the independent claims have been amended. Earlier in prosecution, ninety eight (98) claims were withdrawn with traverse due to a *Restriction Requirement*.

Given the foregoing amendments and arguments, Applicants respectfully request withdrawal of the rejections set forth in the *Office Action* dated 9 November 2010. Applicants believe the application is ready to be allowed. If the Examiner has any questions regarding this *Amendment and Response*, she is invited to call the undersigned at the telephone number listed below.

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Respectfully submitted,

  
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